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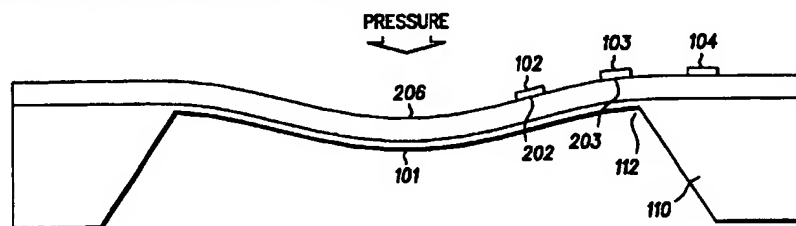
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(54) **Circuit and method of compensating for membrane stress in a sensor**

(57) A circuit and method for correcting a sense signal of a sensor (100) where the sense signal is reduced by a negative nonlinear error component introduced by membrane stress in a sensor structure (101). A first transducer (103) is disposed at a location (203) having substantial bending stress to produce a sense signal having a linear component and the nonlinear error component. A second transducer (102) is disposed at a location (202) with substantially zero bending stress to

produce a sense signal having the nonlinear error component but a substantially zero linear component. The sense signal from the second transducer (102) is added to the sense signal from the first transducer (103) to correct the nonlinear error for producing a linear output sense signal ( $V_{OUT}$ ) of the sensor (100) which is representative of the physical condition.



**FIG. 2** 100



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## EUROPEAN SEARCH REPORT

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The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 29 March 1999	Examiner Dietrich, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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